



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,110	08/21/2003	James B. Blackmon	322101.1010	6680
24504	7590	07/12/2005	EXAMINER	
THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP 100 GALLERIA PARKWAY, NW STE 1750 ATLANTA, GA 30339-5948			XU, LING X	
			ART UNIT	PAPER NUMBER
			1775	

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/645,110	Applicant(s) BLACKMON ET AL.	
	Examiner Ling X. Xu	Art Unit 1775	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/21/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Specification***

1. The use of the trademarks has been noted in this application, such as “INSTILL”, “Aerogel” on pages 3 and 12, “mylar” on pages 6 and 8, “kapton” on page 9 and “Ozark Trail Emergency Blanket” on page 15. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

2. The specification is objected to as failing to provide proper antecedent basis for the following claimed subject matters, *see* 37 CFR 1.75(d)(1) and MPEP § 608.01(o):

- the “high conductivity” and the “high strength parameters” in claim 10,
- the “radiation blocking material” in claim 16, and
- the “multilayer of thermal material” in claim 18.

Claim Rejections - 35 USC § 112

3. Claims 1-3 and 19-23 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for evacuated container to provide vacuum containment of the honeycomb cores, does not reasonably provide enablement for any unspecified evacuated container, which may include a regular empty (evacuated) container. The specification does not enable any person skilled in the art to which it

Art Unit: 1775

pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

4. Claims 9, 10 and 15 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the honeycomb core material to have low thermal conductivity, does not reasonably provide enablement for any unspecified conductivity, which may include the electrical conductivity. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1-2 and 19-20, it is unclear if the first and second honeycomb panels are encased in separate containers.

It is noted that claims 4, 9-10, 15-16 and 18 merely recites the physical characteristics of the structural member, such as the stiffness, high thermal resistance, low or high conductivity, desired on the claimed structural member and not setting for the specific compositions which would meet these characteristics render the claims indefinite since they cover any conceivable combination of ingredients either presently existing or which might be discovered in future and which would impart desired characteristics. The

Art Unit: 1775

claims are too broad and indefinite since it purports to cover everything, which will perform the desired functions regardless of its composition, and it appears to read upon materials that could not possibly be used to accomplish purposes intended. *Ex Parte Slob* (PO BdApp) 157 USPQ 172.

In claim 10, it is also unclear what the high strength parameters are referred to.

In claims 9-10 and 15, the term "low conductivity" in claim 9 and 15 and "high conductivity" in claim 10 are relative terms which render the claims indefinite. The specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. It is also unclear if the conductivity is referred to thermal conductivity.

Claim 12 contains the trademark/trade name "mylar". Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe the source of the thermal insulation material and, accordingly, the identification/description is indefinite.

Claim 13 is indefinite since applicant has invoked 35 U.S.C. 112, sixth paragraph, interpretation of the claims by virtue of the use of means-plus-function language in the

Art Unit: 1775

claims *without* proper definition of those “means” in the specification so that the claims can be interpreted.

The specification does not provide proper definition of the means plus function language “a means for securing an offset stacked arrangement of the vacuum contained honeycomb cores” in claim 13. Applicant should review MPEP 2181. When applicant uses means-plus-function language in a claim, applicant is limited to those equivalent corresponding structures, materials or acts described in the specification. If adequate equivalent corresponding structures, materials or acts are not described sufficiently in the specification, the claims cannot be interpreted and are indefinite. If applicant did not intend to invoke 35 U.S.C. 112, sixth paragraph, interpretation of the claims by use of means-plus-function language, then applicant should redraft the claims without the means-plus-function language.

In claim 20, it is unclear if the additional honeycomb panels are also being encased in an evacuated vacuum container of insulation material.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 1775

Claims 1, 3 and 19-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Jackson et al. (US 6,767,606).

With respect to claims 1 and 21-23, Jackson discloses a honeycomb structure comprising a first and second honeycomb panel in a vacuum film container made of nylon (col. 7, lines 60-67 and col. 8, lines 1-40). The first and second honeycomb panels are misaligned or offset arrangement (col. 6, lines 30-40 and col. 7, lines 30-40).

With respect to claim 3, Jackson discloses that the cells of honeycomb having a hexagonal shape (col. 6, lines 30-40).

With respect to claims 19-20, Jackson discloses a method of making the honeycomb structure (col. 8, lines 1-40).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson as applied to claim 1 above, and further in view of the same reference.

As stated above, Jackson discloses the same honeycomb structure as recited in claim 1.

Jackson does not disclose the honeycomb structure has more than two cores.

However, the additional honeycomb panel structures simply the duplicates of the honeycomb structure disclosed by Jackson.

Art Unit: 1775

It has been held that mere duplication of the essential working parts of a structure involves only routine skill in the art. *St. Regis Paper Co. V. Bemis Co.*, 193 USPQ 8. The court held that mere duplication of parts has no patentable significance unless a new and unexpected result is produced, *see* MPEP 2144.04 VI B.

Therefore, absent of showing unexpected results, it would have been obvious to one of ordinary skill to make multilayer honeycomb structures by simply duplicating the same structure disclosed by Jackson in order to make a more efficient honeycomb.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling X. Xu whose telephone number is 571-272-1546. The examiner can normally be reached on 8:00 - 4:30 Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah D. Jones can be reached on 571-272-1535. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1775

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ling X. Xu
Examiner
Art Unit 1775

lx